



SEQUENCE LISTING

RECEIVED

SEP 16 2002

TECH CENTER 1600/2900

<110> Wang, Huaming
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Aehle, Wolfgang
Rodrigues, Ana
Topozada, Amr

<120> Phenol Oxidizing Enzyme Variants

<130> GC584-2

<140> US 09/656,640

<141> 2000-09-07

<160> 8

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 1958

<212> DNA

<213> Stachybotrys chartarum

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<210> 2

<211> 583

<212> PRT

<213> Stachybotrys chartarum

<400> 2

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Thr	Val	Pro	Asn	Pro	Asn	Thr	Gly	Glu	Asp	Ile	Leu	Tyr	Tyr	Glu	Met
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Glu	Ile	Arg	Pro	Phe	Ser	His	Gln	Ile	Tyr	Pro	Asp	Leu	Glu	Pro	Ala
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Tyr	Tyr	Tyr	Pro	Asn	Arg	Gln	Ala	Ala	Arg	Met	Leu	Trp	Tyr	His	Asp
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His	Ala	Met	Ser	Ile	Thr	Ala	Glu	Asn	Ala	Tyr	Met	Gly	Gln	Ala	Gly
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Val	Tyr	Met	Ile	Gln	Asp	Pro	Ala	Glu	Asp	Ala	Leu	Asn	Leu	Pro	Ser
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Val	Ile	Asp	Phe	Ser	Thr	Phe	Ala	Gly	Gln	Ser	Ile	Asp	Ile	Arg	Asn
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Asp	Lys	Val	Met	Arg	Phe	Val	Val	Asp	Glu	Val	Leu	Glu	Ser	Pro	Asp
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Thr	Ser	Glu	Val	Pro	Ala	Asn	Leu	Arg	Asp	Val	Pro	Phe	Pro	Glu	Gly

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Gly Arg Ala Asn Gly Gln Trp Thr Ile Asn Gly Val Thr Phe Ser Asp				
	405	410	415	
Val Glu Asn Arg Leu Leu Arg Asn Val Pro Arg Asp Thr Val Glu Ile				
	420	425	430	
Trp Arg Leu Glu Asn Asn Ser Asn Gly Trp Thr His Pro Val His Ile				
	435	440	445	
His Leu Val Asp Phe Arg Val Leu Ser Arg Ser Thr Ala Arg Gly Val				
	450	455	460	
Glu Pro Tyr Glu Ala Ala Gly Leu Lys Asp Val Val Trp Leu Ala Arg				
465	470	475	480	
Arg Glu Val Val Tyr Val Glu Ala His Tyr Ala Pro Phe Pro Gly Val				
	485	490	495	
Tyr Met Leu His Cys His Asn Leu Ile His Glu Asp His Asp Met Met				
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Ala Ala Phe Asn Val Thr Val Leu Gly Asp Tyr Gly Tyr Asn Tyr Thr				
	515	520	525	
Glu Phe Ile Asp Pro Met Glu Pro Leu Trp Arg Pro Arg Pro Phe Leu				
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Leu Gly Glu Phe Glu Asn Gly Ser Gly Asp Phe Ser Glu Leu Ala Ile				
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Thr Asp Arg Ile Gln Glu Met Ala Ser Phe Asn Pro Tyr Ala Gln Ala				
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<210> 3

<211> 2095

<212> DNA

<213> Stachybotrys chartarum

<400> 3

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<210> 4

<211> 572

<212> PRT

<213> Myrothecium verucaria

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Gly	His	Leu	Phe	Lys	Arg	Val	Ala	Gln	Ile	Ser	Pro	Gln	Tyr	Pro	Met
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Phe	Thr	Val	Pro	Leu	Pro	Ile	Pro	Pro	Val	Lys	Gln	Pro	Arg	Leu	Thr
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Val	Thr	Asn	Pro	Val	Asn	Gly	Gln	Glu	Ile	Trp	Tyr	Tyr	Glu	Val	Glu
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Arg	Gly	Val	Glu	Thr	Val	Val	Arg	Phe	Ile	Asn	Asn	Ala	Glu	Ala	Pro
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Arg	Lys	Tyr	Arg	Phe	Arg	Phe	Leu	Asp	Ala	Ala	Val	Ser	Arg	Ser	Phe
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Gly	Leu	Tyr	Phe	Ala	Asp	Thr	Asp	Ala	Ile	Asp	Thr	Arg	Leu	Pro	Phe
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Lys	Val	Ile	Ala	Ser	Asp	Ser	Gly	Leu	Leu	Glu	His	Pro	Ala	Asp	Thr
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 Phe Ser Asp Tyr Ala Gly Lys Thr Ile Glu Leu Arg Asn Leu Gly Gly
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 Ser Ile Gly Gly Ile Gly Thr Asp Thr Asp Tyr Asp Asn Thr Asp Lys
 340 345 350
 Val Met Arg Phe Val Val Ala Asp Asp Thr Thr Gln Pro Asp Thr Ser
 355 360 365
 Val Val Pro Ala Asn Leu Arg Asp Val Pro Phe Pro Ser Pro Thr Thr
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 Asn Thr Pro Arg Gln Phe Arg Phe Gly Arg Thr Gly Pro Thr Trp Thr
 385 390 395 400
 Ile Asn Gly Val Ala Phe Ala Asp Val Gln Asn Arg Leu Leu Ala Asn
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 Gly Trp Thr His Pro Ile His Ile His Leu Val Asp Phe Lys Val Ile
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 Ser Arg Thr Ser Gly Asn Asn Ala Arg Thr Val Met Pro Tyr Glu Ser
 450 455 460
 Gly Leu Lys Asp Val Val Trp Leu Gly Arg Arg Glu Thr Val Val Val
 465 470 475 480
 Glu Ala His Tyr Ala Pro Phe Pro Gly Val Tyr Met Phe His Cys His
 485 490 495
 Asn Leu Ile His Glu Asp His Asp Met Met Ala Ala Phe Asn Ala Thr
 500 505 510
 Val Leu Pro Asp Tyr Gly Tyr Asn Ala Thr Val Phe Val Asp Pro Met
 515 520 525
 Glu Glu Leu Trp Gln Ala Arg Pro Tyr Glu Leu Gly Glu Phe Gln Ala
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<210> 5
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 <212> PRT
 <213> Stachybotrys chartarum

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